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EXAMINER	
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ART UNIT	PAPER NUMBER
2427	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,246	BARRETT ET AL.	
	Examiner	Art Unit	
	PATRICK A. RYAN	2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,7,8,11-19 and 22-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5-8,11-19 and 22-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is made in response to Reply to Final Office Action of May 30, 2008 ("Reply"); filed October 3, 2008. Applicant has amended Claims 1, 5, 8, 11-16, 19, 22-26, and 29-31; no claims have been added; and Claims 2, 6, 9, 10, 20, and 21 were previously canceled (see March 4, 2008 amendment). As amended, Claims 1, 3-5, 7, 8, 11-19, and 22-35 are presented for examination.

2. In Office Action of May 30, 2008 ("Office Action"):

Claims 1 and 5 were objected to because of minor informalities.

Claims 1, 5, 8, 19, 29, and 31 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Claims 31, 34, and 35 were rejected under 35 U.S.C. 102(e) as being anticipated by Zaslavsky et al., United States Patent Application Publication (2003/0014752 A1).

Claims 1, 3, 4, 5, 7, 8, 11, 15-19, 22, 25-30, 32, and 33 were rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky in view of Norsworthy et al., United States Patent (6,784,945 B2).

Claims 12, 13, 14, 23, and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky and Norsworthy, and further in view of Gordon et al, United States Patent (6,481,012 B2).

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 3, 2008 has been entered.

Miscellaneous

4. Applicant is advised that the Examiner's Art Unit number has changed from 2623 to 2427. All further correspondence should be directed to Art Unit 2427.

Response to Arguments

5. Applicant has amended Claims 1 and 5 to read "transmitting a plurality of audio feeds separately from the plurality of the thumbnail video feeds over the communications network." This amendment has identified the "the video feeds" that are transmitted to be "thumbnail" in nature. Therefore, the objection to Claims 1 and 5 has been withdrawn.

6. Applicant has amended Claims 1, 5, 8, 19, 29, and 31 by removing the limitations "without multiplexing" and "non-multiplexed." In view of this amendment, the rejection rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement, has been withdrawn.

7. Applicant's arguments, see Reply Pages 21-23, with respect to the rejection of independent Claim 31 under 35 U.S.C. 102(e) as being anticipated by Zaslavsky have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's arguments, see Reply Pages 24-38, with respect to the rejection of independent Claims 1, 5, 8, 19, and 29 under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky in view of Norsworthy, specifically the teachings of Zaslavsky, have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments, see Reply Pages 24-38, with respect to the rejection of independent Claims 1, 5, 7, 8, 19, and 29 under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky in view of Norsworthy, specifically the teachings of Norsworthy, have been considered but they are not persuasive.

Applicant presents that Norsworthy does not teach the limitation "transmitting a plurality of audio feeds separately from the plurality of thumbnail video feeds over the communications network" because Norsworthy shows "a TV system in which a user watches (and listens) to one channel (the main channel) and several other channels are presented (without audio) concurrently on the screen", which is not "transmitting more than one audio feed." (Reply Page 26 Paragraph [0038]; with further reference to Norsworthy Col. 2 Lines 4-7). The Examiner respectfully disagrees.

The Examiner submits that the portion of Norsworthy cited by Applicant pertains to the output of audio and video information at the user's location, and not to the

transmission of audio and video information. The Examiner has relied on Col. 3 Lines 27-55, Col. 4 Lines 59-62, and Figure 9 of Norsworthy (Office Action Page 8) in order to teach the above cited limitation. In particular, the Norsworthy teaches “the PIP [Picture-in-Picture] system 90 uses a single tuner (tuner 11) controlling several channels. Audio is provided by a separate tuner (tuner 91)” (as disclosed in Col. 4 Lines 59-62 and shown in Fig. 9). As shown in Figure 9, Norsworthy’s “PIP system 90” contains two tuners, one for “Audio” and one for “PIP”. It is the Examiner's position that the tuner structure of Figure 9 is indented to receive audio streams corresponding to the PIP video streams because these tuners are contained within the "PIP system 90" and, as Norsworthy describes in Col. 3 Lines 27-55, multiple PIP's are indented for transmission. Therefore, the Examiner submits that Norsworthy does in fact teach “transmitting more than one audio feed.”

10. Applicant’s arguments, see Reply Pages 39-40, with respect to the rejection of dependent Claims 12, 13, 14, 23, and 24 under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky and Norsworthy, and further in view of Gordon, specifically the teachings of Gordon, have been considered but they are not persuasive.

Applicant presents that Gordon does not teach the limitation "requesting a full-scale version of a selected one of the plurality of the presented thumbnail video feeds;" because “[t]he Examiner provides no objective evidence, from Gordon or any other reference, as to why a person having ordinary skill in the art would equate Gordon's full

resolution disclosure with a full-scale version" (Reply Pages 39-40; with further reference to Gordon Col. 24 Lines 11-19). The Examiner respectfully disagrees.

The Examiner has relied on the Figure 28 of Gordon to demonstrate the act of selecting a thumbnail video feed ("object for channel E" shown in left mosaic display of Fig. 28), which invokes the "the full-resolution display 2802" (as Gordon describes in Col. 24 Lines 11-18; with further reference to Office Action Page 21). The Examiner interprets Gordon's use of the word "resolution" to be related to the size of the displayed object because, with reference to Figure 23, Gordon describes:

> nine objects may be displayed on one full-size video screen by dividing the screen into a 3.times.3 matrix with nine areas. In this case, each of the nine objects would be displayed at 1/3 of the full horizontal resolution and 1/3 of the full vertical resolution. (as disclosed in Col. 22 Lines 1-19)

It is the Examiners position that, in view of the above citation from Gordon, the word "resolution" is intended to relate to screen size (i.e. 1/3 resolution relating to an object that has a dimension 1/3 of the total screen) and therefore presents that Gordon's use of the words "full-resolution" is equivalent to "full-screen" or "full-scale."

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 29-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, the Applicant lacks sufficient support for the claimed limitation: "a receiving unit configured for concurrently receiving, without any tuners… a plurality of scaled-reduced video feeds." Paragraph [0032] of the instant application recites "…UI [User Interface] producer does not utilize tuners to receive multiple video feeds…", and "Rather, it uses a communications network." It is the Examiner's position that Paragraph [0032] provides insufficient support for a receiver without a tuner because no alternate device is described to provide an interface with the "communications network". In addition, the Examiner submits that Paragraphs of the instant application [0092-0093] describe Presentation Device 608 (claimed "receiving unit") including "a first tuner 800 and an optional second tuner 802." For the purpose of this Office Action, the Examiner will assume "receiving unit… without any tuners" to represent a device that "use[s] a communications network", in light of Paragraph [0032] of the instant application.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 31, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky (of record) in view of Dawson et al., United States Patent Application Publication (2004/0184523 A1), hereinafter “Dawson”.

15. In regards to Claim 31, Zaslavsky teaches a computer-readable medium having computer-executable instructions (hardware 1700, as described in Paragraph [0141]) that, when executed by a computer, produce a user-interface (UI) of a multimedia system (CPU 200 as described in Paragraph [0096] Lines 9-11), the UI comprising multiple "thumbnail" display areas (interface block 803 of Fig. 14, as described in Paragraph [0135]), each area configured to display a reduced-scale ("thumbnail") video feed received in response to a request for the thumbnail video feed of each area (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The “channels” (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the “User input selecting “channel” for textural mapping” received by Input Circuit 1708 of Fig. 17).

Zaslavsky teaches receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system

includes client display 215 of Fig. 2 "that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215" (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also "provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images" and "may communicate with the video content server by means of a request signal 221" (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]).

16. In regards to Claim 34, the combination of Zaslavsky and Dawson teach a medium as recited in Claim 31, wherein each thumbnail video feed displayed is a

separate and distinct video feed (mapped areas 810x, 810y, and 810z of Fig. 16 contain video frames 505x, 505y, and 505z, as described in Paragraph [0138-0140]).

17. In regards to Claim 35, Zaslavsky and Dawson teach a medium as recited in Claim 31, wherein the UI further comprises an executable program module configured to respond to user selection of one of the multiple thumbnail display areas (transducer 212 of Fig. 7, as described in Paragraph [0097] Lines 1-9; with further reference to channel 911 of Fig. 15 that allows a user to “select the preferred channel”, as described in Paragraph [0137]).

18. Claims 1, 3, 4, 5, 7, 8, 11, 15-19, 22, 25-30, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky (of record) in view of Norsworthy (of record) in further view of Dawson (of record).

19. In regards to Claim 1, Zaslavsky teaches a computer-readable medium having computer-executable instructions (hardware 1700, as described in Paragraph [0141]) that, when executed by a computer (CPU 200 as described in Paragraph [0096] Lines 9-11), performs a method comprising:

reducing the scale of a video feed to produce its "thumbnail" video feed (size conversion function 401 of Figure 10, as described in Paragraph [0127]);

receiving a request for a plurality of the thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The “channels” (which contain Little Streams 505x,

505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the "User input selecting "channel" for textural mapping" received by Input Circuit 1708 of Fig. 17); and

concurrently transmitting the plurality of the thumbnail video feeds over a communications network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced-scale thumbnail video feeds 1-100 and 101-x transmitted along with standard channels 400).

Zaslavsky teaches generating multiple scale-reduced thumbnail video feeds that are concurrently transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 "that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215" (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also "provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images" and "may communicate with the video content server by means of a request signal 221" (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach transmitting a plurality of audio feeds separately from the plurality of the thumbnail video feeds over the communications network.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norswothy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

20. In regards to Claim 3, the combination of Zaslavsky, Dawson, and Norsworthy teach a medium as recited in Claim 1, wherein the method further comprises preprocessing the video feed to aid in producing a low-resolution version (Zaslavsky teaches further processing with encoding and multiplexer element 402 to create separate stream 1-100, as disclosed in Paragraph [0127], where the stream could be "converted down to 20x16 pixels for example").

21. In regards to Claim 4, the combination of Zaslavsky teaches a computing device (CPU 200 as described in Paragraph [0096] Lines 9-11) comprising: a media-stream transmitter (transmission circuit 1806 of Figure 18, as described in Paragraph [0142] Lines 9-11); a medium as recited in Claim 1 (the limitations of the method of Claim 1 have been addressed above using the combination of Zaslavsky, Dawson, and Norsworthy).

22. In regards to Claim 5, Zaslavsky teaches a method comprising

reducing the scale of a video feed to produce its "thumbnail" video feed (size conversion function 401 of Figure 10, as described in Paragraph [0127]);

receiving a request for a plurality of the thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The “channels” (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the “User input selecting “channel” for textural mapping” received by Input Circuit 1708 of Fig. 17);

concurrently transmitting the plurality of the thumbnail video feeds over a communications network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced-scale thumbnail video feeds 1-100 and 101-x transmitted along with standard channels 400).

Zaslavsky teaches generating multiple scale-reduced thumbnail video feeds that are concurrently transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 “that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video

signal to the client display 215" (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also "provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images" and "may communicate with the video content server by means of a request signal 221" (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach transmitting a plurality of audio feeds separately from the plurality of the thumbnail video feeds over the communications network.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norswothy's method further comprises the construction and display of an

Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

23. In regards to Claim 7, the combination of Zaslavsky, Dawson, and Norsworthy teach a method as recited in Claim 5, further comprising preprocessing the video feed to aid in producing a low-resolution version (Zaslavsky teaches further processing with encoding and multiplexer element 402 to create separate stream 1-100, as disclosed in Paragraph [0127], where the stream could be "converted down to 20x16 pixels for example").

24. In regards to Claim 8, Zaslavsky teaches a computer-readable medium having computer-executable instructions that (program memory 202, as described in

Paragraph [0096] Lines 9-11), when executed by a computer (CPU 200 as described in Paragraph [0096] Lines 9-11), performs a method comprising

concurrently receiving a plurality of scaled-reduced versions of video feeds ("thumbnail video feeds") over a communication network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced scale thumbnail video feeds 1-100 and 101-x. Broadcast Stream 400 is then delivered to the user for display, as described in Paragraph [0131]; with further reference to Fig. 11).

constructing and presenting a user-interface (UI) comprising the plurality of the thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The "channels" (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the "User input selecting "channel" for textural mapping" received by Input Circuit 1708 of Fig. 17); and

Zaslavsky teaches receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 "that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the

content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215" (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also "provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images" and "may communicate with the video content server by means of a request signal 221" (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach receiving a plurality of audio feeds separately from the plurality of thumbnail video feeds and presenting audio that corresponds to one of the plurality of the presented thumbnail video feeds.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics

information. Norswothy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

25. In regards to Claim 11, the combination of Zaslavsky, Dawson, and Norsworthy teach a medium as recited in Claim 8, wherein the method further comprises receiving a highlight indication for one of the plurality of the presented thumbnail video feeds (Zaslavsky teaches a highlighted frame of channel 911 shown in Fig. 15, as disclosed in Paragraph [0137] Line 3); presenting audio that corresponds to that highlighted one of the plurality of the presented thumbnail video feeds (Norsworthy teaches presenting audio corresponding to a selected main channel, which is one of a number of picture-in-picture video streams, as disclosed in Col. 3 Lines 36-55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the highlighted indication method of Zaslavsky with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

26. In regards to Claims 15 and 16, the combination of Zaslavsky, Dawson, and Norsworthy teach a medium as recited in Claim 8, wherein the UI that is constructed and presented further comprises information associated with one or more of the plurality of thumbnail video feeds; and wherein the UI that is constructed and presented further comprises electronic program information associated with one or more of the plurality of thumbnail video feeds (Norswothy's method comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704, as disclosed in Col. 6 Lines 8-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed method of Zaslavsky and Dawson with the information display method of Norsworthy because this information and video display would give the viewer a general visual impression of what is on the channel (as disclosed by Norsworthy is Col. 6 Lines 1-5), which would therefore further aid the view in determining if the program is desirable enough to watch.

27. In regards to Claim 17, the combination of Zaslavsky, Dawson, and Norsworthy teach a medium as recited in Claim 8, wherein the UI that is constructed and presented

further comprises an on-going full-scale video feed (Norsworthy's method comprises a display having a main picture 21 and a plurality of other picture-in-picture displays 21-1 through 22-n, as disclosed in Col.3 Lines 39-45 with reference to Fig. 2. Norsworthy's method is implemented using a specific tuner to display the picture-in-picture images, with reference to Tuner 11 of Fig. 3, as described in Col. 3 Lines 34-38; with further reference to PIP System 90 of Fig. 9, as described in Col. 4 Lines 49-63).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed method and medium of Zaslavsky and Dawson with the display method and medium of Norsworthy because the user would gain the ability to view multiple channels at one time (as Norsworthy discloses in Col.1 lines 21-27).

28. In regards to Claim 18, the combination of Zaslavsky teaches a computing device (CPU 200 as described in Paragraph [0096] Lines 9-11) comprising: a media-stream presentation device (transmission circuit 1806 of Figure 18, as described in Paragraph [0142] Lines 9-11); a medium as recited in Claim 8 (the limitations of Claim 8 have been addressed using the combination of Zaslavsky, Dawson, and Norsworthy).

29. In regards to Claim 19, Zaslavsky teaches a method facilitating production of a user-interface (UI), the method comprising

concurrently receiving a plurality of scaled-reduced versions of video feeds ("thumbnail video feeds") over a communication network (broadcast channel 410 of Fig.

10, as described in Paragraph [0128], showing multiple reduced scale thumbnail video feeds 1-100 and 101-x. Broadcast Stream 400 is then delivered to the user for display, as described in Paragraph [0131]; with further reference to Fig. 11).

constructing and presenting a user-interface (UI) comprising the plurality of the thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The "channels" (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the "User input selecting "channel" for textural mapping" received by Input Circuit 1708 of Fig. 17); and

Zaslavsky teaches receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system includes client display 215 of Fig. 2 "that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215" (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also "provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images" and

"may communicate with the video content server by means of a request signal 221" (as discloses in Paragraph [0032]).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user request, as taught by Dawson, in order to eliminate the scaling requirement of the client display device (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach receiving a plurality of audio feeds separately from the plurality of thumbnail video feeds and presenting audio that corresponds to one of the plurality of the presented thumbnail video feeds.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norswothy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and

Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

30. In regards to Claim 22, the combination of Zaslavsky, Dawson, and Norsworthy teach a method as recited in Claim 19 further comprising receiving a highlight indication for one of the plurality of the presented thumbnail video feeds; presenting audio that corresponds to that highlighted one of the plurality of the presented thumbnail video feeds (these limitations have been addressed with reference to Claim 11 as cited above).

31. In regards to Claim 25 and 26, the combination of Zaslavsky, Dawson, and Norsworthy teach a method as recited in Claim 19, wherein the UI that is constructed and presented further comprises information associated with one or more of the plurality of thumbnail video feeds; and wherein the UI that is constructed and presented further comprises electronic program information associated with one or more of the plurality of thumbnail video feeds (these limitations have been address with reference to Claims 15 and 16 as cited above).

32. In regards to Claim 27, the combination of Zaslavsky, Dawson, and Norsworthy teach a method as recited in Claim 19, wherein the UI that is constructed and presented further comprises an on-going full-scale video feed (these limitations have been address with reference to Claim 17 as cited above).

33. In regards to Claim 28, the combination of Zaslavsky teaches a computer comprising one or more computer-readable media having computer-executable instructions (Zaslavsky discloses a CPU 200 as described in Paragraph [0096] Lines 9-11; with further reference to hardware 1700, as described in Paragraph [0141]) that, when executed by the computer, perform the method as recited in Claim 19 (the limitations of Claim 19 have been address as cited above with the combination of Zaslavsky, Dawson, and Norsworthy).

34. In regards to Claim 29, Zaslavsky teaches a multimedia system comprising a receiving unit configured for concurrently receiving, without any tuners (hardware used by receiver including Network I/O 213, as described in Paragraphs [0096-0100]), a plurality of scaled-reduced video feeds ("thumbnail video feeds") over a communication network (broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced scale thumbnail video feeds 1-100 and 101-x. Broadcast Stream 400 is then delivered to the user for display, as described in Paragraph [0131]; with further reference to Fig. 11);

a user-interface (UI) generator configured to generate a UI comprising the plurality of the thumbnail video feeds (interface block 803 generates display areas 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user, as described in Paragraph [0137]. The "channels" (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping is performed based on the "User input selecting "channel" for textural mapping" received by Input Circuit 1708 of Fig. 17);

a presentation device configured for presentation of the UI ("The EPG can be displayed on a television, personal computer, or a device that is a combination…" as disclosed in Paragraph [0114] Lines 7-9).

Zaslavsky teaches receiving multiple scale-reduced thumbnail video feeds that are transmitted over a communications network, but does not explicitly teach that the request for displaying is received via a communications network. In addition, Zaslavsky does not teach the receiving unit is further configured with an upper limit of total bandwidth that is available via the communication network, each thumbnail video feed of the plurality of thumbnail video feeds has a bit-rate property, and the cardinality of the plurality of the thumbnail video feeds received by the receiving unit being bound by the upper limit of total bandwidth that is available via the communication network and the bit-rate properties of the plurality of thumbnail video feeds received by the receiving unit.

In a similar field of invention, Dawson teaches a method and system for providing reduced network bandwidth for PIP video transmissions. Dawson's method and system

includes client display 215 of Fig. 2 "that facilitates the transmission of a request signal to a content server 211 which prompts the scaling of an auxiliary video signal by the content server 211 to a smaller size prior to the transmission of the auxiliary video signal to the client display 215" (as disclosed in Paragraph [0026]; with further reference to Paragraphs [0027-0031]). Client device 215 also "provides a small PIP display 219 inside the devices larger main video display 217 area for presenting picture images" and "may communicate with the video content server by means of a request signal 221" (as discloses in Paragraph [0032]). In addition, Dawson teaches reducing and limiting the bandwidth space allocated to components of the video output signal, as well as other parameters such as frame rate and image quality (as disclosed in Paragraphs [0008, 0009, 0051, 0052). As shown in Figures 4A and 4B, Dawson applies an upper limit to the bandwidth that is available via the communications network (i.e. 100%) and also applies a bandwidth limitation to the PIP Display 219 (i.e. 20%).

Both Zaslavsky and Dawson teach a method and a system for providing reduced-scale video streams to an end user over a communications network. Zaslavsky teaches displaying multiple reduced-scale video streams on a user interface, where each is displayed based on the request of the user. Dawson teaches transmitting a reduced-scale video stream to a user, in response to a request by the user, from a headend server and in accordance with the limitations of the transmission network. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zaslavsky so that the reduced-scale video streams were transmitted to the user over a communications network in response to a user

request and in accordance with network limitations, as taught by Dawson, in order to eliminate the scaling requirement of the client display device and to insure adequate image quality in a main picture display (as Dawson discusses in Paragraphs [0002-0008]; with further reference to Paragraph [0050]).

The combination of Zaslavsky and Dawson does not teach receiving a plurality of audio feeds separately from the plurality of thumbnail video feeds and presenting audio that corresponds to one of the plurality of the presented thumbnail video feeds.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norswothy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy further teaches transmitting audio and video signals in separate streams, as received by Tuner 11 for PIP video and Tuner 91 for audio, as shown in Fig. 9 and described Col. 4 Lines 59-62; with further reference to Col. 3 Lines 27-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed generation and transmission method of Zaslavsky and Dawson with Norsworthy's method of transmitting audio and video streams separately because the multiple tuner system allows for audio to be displayed with a main picture while allowing a user to tune to multiple picture-in-picture feeds on the same display at the same time (as Norsworthy discloses in Col. 3 Lines 33-55).

35. In regards to Claim 30, the combination of Zaslavsky, Dawson, and Norsworthy teach a system as recited in Claim 29 further comprising a UI selection device configured for the user to either highlight or select the one or more a plurality of thumbnail video feeds (Zaslavsky discloses an alphanumeric keyboard 218 of Fig. 7, as described in Paragraph [0112] Lines 14-19).

36. In regards to Claims 32 and 33, Zaslavsky and Dawson teach a medium as recited in Claim 31, but do not teach wherein the UI further comprises at least one information display area configured to display information associated with a corresponding thumbnail video feed.

In a similar field of invention, Norsworthy teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Norswothy's method further comprises the construction and display of an Electronic Program Guide (Fig. 7) that includes informational displays 71-74 and signals 701-704 (as disclosed in Col. 6 Lines 8-14). Norsworthy's method is implemented in a memory module (memory 14) connected to a processor (video processing 15 as disclosed in Col. 4 Lines 26-34).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed method and medium of Zaslavsky and Dawson with the information display method and medium of Norsworthy because this information and video display would give the viewer a general visual impression of

what is on the channel (as disclosed by Norsworthy is Col. 6 Lines 1-5), which would therefore further aid the view in determining if the program is desirable enough to watch.

37. Claims 12, 13, 14, 23, and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Zaslavsky, Dawson, and Norsworthy as applied to Claims 8 and 19 above, and further in view of Gordon (of record).

38. In regards to Claims 12, 13, 14, 23, and 24 Zaslavsky, Dawson, and Norsworthy teach a method for facilitating the distribution, construction, and presentation of a UI comprising

receiving one or more scaled-reduced version video feeds sent over a communications network (Zaslavsky teaches broadcast channel 410 of Fig. 10, as described in Paragraph [0128], showing multiple reduced scale thumbnail video feeds 1-100 and 101-x. Broadcast Stream 400 is then delivered to the user for display, as described in Paragraph [0131]; with further reference to Fig. 11), and

receiving a selection request that selects one of the plurality of the presented thumbnail video feeds (Display areas are shown as elements 810a-f of Fig. 14, as described in Paragraph [0135]. Additionally, Fig. 15 demonstrates multiple different Channels 910a-n displayed to the user and allows the user to select the preferred channel, as described in Paragraph [0137]. The “channels” (which contain Little Streams 505x, 505y, and 505z) are mapped to areas 810x, 810y, and 810z by way of textual mapping, as shown in Fig. 16 and described in Paragraph [0138]. This mapping

is performed based on the "User input selecting "channel" for textural mapping" received by Input Circuit 1708 of Fig. 17);

Zaslavsky suggests that a single channel is selected for display by way of the interface of Figure 15, which is used to "navigate to a selected frame, and select the preferred channel" (as described in Paragraph [0137]), but it is unclear if a full-scale version of a select one of the plurality of the presented thumbnail video feeds is requested or zooming is performed on the select one of the plurality of the presented thumbnail video feeds so that the select one inhabits much or all of the available screen space.

In a similar field of invention, Gordon teaches a method for generating, distributing, and receiving a transport stream containing compressed video and graphics information. Gordon's method further comprises "interacting with an object by selecting it to activate a full-resolution broadcast channel" (as disclosed in Col. 24 Lines 11-14; with further reference to Fig. 23 and Col. 22 Lines 1-19). Following the selection in the thumbnail view (shown as CH-E of Fig 28), the display changes to a full-resolution view (display 2802 of Fig 28; with further reference to Fig. 23 and Col. 22 Lines 1-19) of the video broadcast for channel E (as disclosed in Col. 24 Lines 14-19). In addition, Gordon demonstrates a "zooming" action when switching from the thumbnail display of CH-E to FULL-RESOLUTION CH-E 2802, as shown in Fig. 28.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combined the scaled-reduced video feed method of Zaslavsky, Dawson, and Norsworthy, with the full-resolution activation method of Gordon because a viewer

would desire to display a full resolution and full screen image in order to dedicate their full attention to the broadcast program of interest.

Conclusion

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK A. RYAN whose telephone number is (571)270-5086. The examiner can normally be reached on Mon to Thur, 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/P. A. R./
Examiner, Art Unit 2427
Wednesday, December 17, 2008

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427